

AMENDMENTS TO THE SPECIFICATION

Please replace paragraph [0027] on page 6, with the following rewritten paragraph:

Referring now to Figure 9, a solution to the sector boundary problem is illustrated by the modification of two PWM cycles so that the current can be measured. In the sector 0-5 transition, similar to sector transitions 1-2 and 3-4 σ is less than α , i.e., near sector 0-5 boundary. In this situation, the current reconstruction is given by the following equations.

$$I_U = (I_2 + I_4)/2$$

$$I_V = (-I_3 + I_1 - I_2)/2 \quad \underline{(1)}$$

$$I_W = (-I_1 + I_3 - I_4)/2$$

Please replace paragraph [0029] on page 7, with the following rewritten paragraph:

Referring now to Figure 10, signal waveforms in sector zero where signal waveforms $60^\circ < \sigma < 60^\circ$ are shown. That is, near sector 0-1 boundary, the current reconstruction is obtained as the U, V and W signals are modified. The reconstructed motor phase currents are obtained according to the following equations.

$$I_U = (I_2 + I_3 - I_4)/2$$

$$I_V = (I_4 + I_1 - I_2)/2 \quad \underline{(2)}$$

$$I_W = (-I_1 - I_3)/2$$

Please replace the paragraph [0032] on page 7, with the following rewritten paragraph:

The current reconstruction equations for this sector are as follows.

$$I_U = (I_4 + I_1 - I_2)/2$$

$$I_V = (I_2 + I_3 - I_4)/2 \quad \underline{(3)}$$

$$I_W = (-I_1 - I_3)/2.$$

Please replace the paragraph [0034] on page 8, with the following rewritten paragraph:

Referring now to Figure 12, the sector 1 transition near the sector boundary 1-2 is illustrated where $120-\alpha \leq \sigma < 120$. The current reconstruction equations are given as follows.

$$\begin{aligned} I_U &= (-I_3 + I_1 - I_2)/2 \\ I_V &= (I_2 + I_4)/2 \\ I_W &= (-I_1 + I_3 - I_4)/2 \end{aligned} \quad (4)$$